WHAT IS CLAIMED IS:

1. A lubricant amount control apparatus comprising:

an input energy calculating device which calculates energy input to a power transmission mechanism;

a supply amount calculating device which calculates a supply amount of lubricant based on the input energy; and

a controller which controls a lubricating device for supplying lubricant such that the calculated supply amount of lubricant is supplied to the power transmission mechanism.

2. The lubricant amount control apparatus according to claim 1, wherein the supply amount increases as the input energy increases.

3. The lubricant amount control apparatus according to claim 1, wherein the power transmission mechanism is a transmission including a fluid coupling.

4. The lubricant amount control apparatus according to claim 1, further comprising:

an input torque calculating device which calculates torque input to the power transmission mechanism;

an operating state detecting device which detects an operating state of the power transmission mechanism, wherein the input energy calculating device calculates the input energy based on the calculated input torque and the detected operating state.

5. The lubricant amount control apparatus according to claim 4, wherein the operating state is an input rotational speed of the power transmission mechanism.

6. The lubricant amount control apparatus according to claim 4, wherein the power transmission mechanism is a transmission including a fluid coupling, and the operating state is a heat generation state of the fluid coupling.

7. The lubricant amount control apparatus according to claim 1, further comprising a lubricant temperature detecting device which detects a lubricant temperature, wherein the supply amount calculating device calculates the supply amount of lubricant based on the input energy and the lubricant temperature.

8. The lubricant amount control apparatus according to claim 7, further comprising:

an input torque calculating device which calculates torque input to the power transmission mechanism;

an operating state detecting device which detects an operating state of the power transmission mechanism, wherein the input energy calculating device calculates the input energy based on the calculated input torque and the detected operating state.

9. The lubricant amount control apparatus according to claim 7, wherein the supply amount calculating device calculates the supply amount based on the input energy and the lubricant temperature when the lubricant temperature is in a predetermined range.

10. The lubricant amount control apparatus according to claim 7, wherein the supply amount calculating device calculates the supply amount such that the supply amount becomes a predetermined amount when the lubricant temperature is not in the predetermined range.

11. A lubricant amount control method comprising the steps of:

calculating energy input to a power transmission mechanism of a vehicle;

calculating a supply amount of lubricant based on the input energy; and

controlling a lubricating device for supplying lubricant such that the calculated supply amount of lubricant is supplied to the power transmission mechanism.

12. The lubricant amount control method according to claim 11, wherein the supply amount increases as the input energy increases.

13. The lubricant amount control method according to claim 11, wherein the power transmission mechanism is a transmission including a fluid coupling.

14. The lubricant amount control method according to claim 11, further comprising the steps of:

calculating torque input to the power transmission mechanism; and

detecting an operating state of the power transmission mechanism, wherein the input energy is calculated based on the calculated input torque and the detected operating state in the step of calculating the input energy.

15. The lubricant amount control method according to claim 14, wherein the operating state is an input rotational speed of the power transmission mechanism.

16. The lubricant amount control method according to claim 14, wherein the power transmission mechanism is a transmission including a fluid coupling, and the operating state is a heat generation state of the fluid coupling.

17. The lubricant amount control method according to claim 11, further comprising the step of detecting a lubricant temperature, wherein the supply amount is calculated based on the input energy and the lubricant temperature in the step of calculating the supply amount of lubricant.

18. The lubricant amount control method according to claim 17, further comprising the steps of:

calculating torque input to the power transmission mechanism;

detecting an operating state of the power transmission mechanism, wherein the input energy is calculated based on the calculated input torque and the detected operating state in the step of calculating the input energy.

19. The lubricant amount control method according to claim 17, wherein the supply amount is calculated based on the input energy and the lubricant

temperature in the step of calculating the supply amount when the lubricant temperature is in a predetermined range.

20. The lubricant amount control method according to claim 17, wherein the supply amount is calculated such that the supply amount becomes a predetermined amount in the step of calculating the supply amount when the lubricant temperature is not in a predetermined range.